CLAIMS

What is claimed is:

1   1.   A system for providing secure communication of a voice call placed across a

2   PSTN through a telephony resource, wherein a voice call is understood to refer to a call using

3   a bearer service that is circuit mode, with either 64Kbps information transfer rate or 64Kbps

4   information transfer rate adapted to 56Kbps, that uses unrestricted or restricted digital

5   information transfer capability, said system comprising:

6   a security policy including rules defining a voice call to be conducted in a secure

7   mode;

8   a VPSTN for implementing said rules in said security policy and initiating encryption

9   of the voice call using a secure mode selected from a predetermined set of secure modes and

10   placing the call across the PSTN;

11   said VPSTN including an in-line device for intercepting and modifying the set-up of a

12   voice call identified by said security policy to be conducted in a secure mode;

13   said modification of said call set-up including changing said call set-up from a

14   request for bearer capability to support a voice call to a call set-up including a request for

15   bearer capability to support a data call, said data call being understood to refer to a call using

16   a bearer service that is circuit mode, with speech or 3.1 kHz audio information transfer

17   capability and user information layer 1 protocol G.711 mu-law or A-law.

1   2.   The system as defined in Claim 1 wherein said VPSTN also provides for

2   initiating an encryption of the voice call using another secure mode selected from said

3   predetermined set of secure modes and placing another data call should a prior attempt to

4   place the call across the PSTN as a data call fail.

1   3.   The system as defined in Claim 2 wherein said VPSTN also provides for

2   initiation of encryption of the voice call in a voice call secure mode should all attempts at

3   placing the call across the PSTN as a data call fail.

1   4.   A method for providing secure communication of a voice call placed across a

2   PSTN through a telephony resource, wherein a voice call is understood to refer to a call using

3   a bearer service that is circuit mode, with either 64Kbps information transfer rate or 64Kbps

4   information transfer adapted to 56Kbps, that uses unrestricted or restricted digital

5   information transfer capability, said method comprising the steps of:

6   establishing a security policy including rules which define a voice call to be

7   conducted in a secure mode;

8   using a VPSTN to implement said rules in said security policy and initiating

9   encryption of the voice call using a secure mode selected from a predetermined set of secure

10   modes and placing the call across the PSTN, said VPSTN including an in-line device for

11   intercepting and modifying the set-up of a voice call identified by said security policy to be

12   conducted in a secure mode;

13   said step of using a VPSTN to modify said set-up of those voice calls identified by

14   said security policy to be conducted in a secure mode includes changing said set-up from a

15   request for bearer capability to support a voice call to a call set-up including a request for

16   bearer capability to support a data call, said data call being understood to refer to a call using

17   a bearer service that is circuit mode, with speech or 3.1 audio kHz audio information transfer

18   capability and user information layer 1 protocol G.711 mu-law or A-law.

1   5.   The method as defined in Claim 4 wherein said VPSTN also provides for

2   initiating an encryption of the voice call using another secure mode selected from said

3   predetermined set of secure modes and placing another data call should a prior attempt to

4   place the call across the PSTN as a data call fail.

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1   6.   The method as defined in Claim 5 wherein said VPSTN also provides for

2   initiation of encryption of the voice call in a voice call secure mode should all attempts at

3   placing the call across the PSTN as a data call fail.